

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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SECURITY INFORMATION

COUNTRY	USSR (Kalinin Oblast)	REPORT NO.	<input type="text"/>	25X1A
SUBJECT	Description of the First Floor of Branch 1 of NII 88 at Gorodomlya Island and Brief Data on the Second and Third Floors	DATE DISTR.	26 August 1953	
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SOURCE:

Source's sketch of the ground plan of the main building at Gorodomlya Island is shown on page 6. Drawings of the second and third floors have not been given because they duplicate information given by a number of previous sources.

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INJECTION NOZZLE LABORATORY

1. The personnel of this laboratory at Branch 1 of Institute 88 consisted of two German specialists and one Soviet worker. Their tasks included the examination of injection nozzles for fuel and oxygen, calibration of orifices for flow measurement, and the determination of pressure loss characteristics for regulating valves. Nozzles were tested with regard to loss of pressure, and the distribution of the spray as to area and density. All work in this laboratory was with respect to equipment used at Ostashkov alone, not for outside agencies. The laboratory was very ill equipped, and Prof. PAUER, its chief, was severely handicapped in his work.

CONTROLS TEST STAND

2. Personnel of this unit were German specialist SPECHT and two Soviet engineers. The equipment consisted of only four 200-atmosphere compressed air connections for testing BLASIG's control apparatus. This apparatus was a servomechanism employing four graphite rudders set at the 90°, 180°, 270°, and 360° point of the circumference of the exhaust gas column, these vanes or rudders being deflectable so as to control the direction of the missile. Basically, the system used was a pneumatic servomechanism similar to the Sperry equipment used in WW II for the movement of aircraft searchlights, etc., and contained no new developments. It employed a relatively low-pressure air stream to actuate pistons which in turn released a high-pressure system for the actual control work.
3. The mechanisms to be tested came directly from Podlipki and were examined as to the force delivered by the servo and the correctness of the deflection angle of the vanes. If the results were satisfactory, the mechanism was immediately returned to Podlipki; but, if not, REBITZKI, a German precision mechanic, repaired the apparatus if possible.
4. Since early 1951, approximately 20 mechanisms per month were received and tested. I saw quite a number of them and was convinced that they were being manufactured in a production-line fashion due to the roughness of the work. Of approximately 200 mechanisms tested at Ostashkov, 40 were completely unusable and had to be reworked. None of them were actually usable as they were received from Podlipki. The greatest difficulty was that the pistons were too small and had to be replaced.

CHEMICAL, STATISTICAL, AND SPECTROGRAPHIC LABS

5. These laboratories performed routine material and fuel testing for the branch. After 1950 the tensile strength and Brinell hardness equipment was moved to the north wing of the building [not shown on sketch, page 6] and made a part of Sector 9.

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PHOTO LABS

6. Two separate photo laboratories existed in this building. One was for the exclusive use of Soviet personnel wherein record test data and test photographs were processed. Access to this area was not granted to German personnel. The German laboratory had the assignment of photographing each piece of test equipment, experimental test, or building erected on the site. These photographs were bound by MATHEIS, a photographer, and forwarded to Moscow once a year.
7. Both photo laboratories were equipped to develop and print the color film designated as 31/10⁰ Din Airphoto Film, a highly sensitive film. I do not recall the film speed rating. Markings on the film indicated that it was manufactured by Foto-Plonka, Zavod 2, Leningrad, which, I believe, had been moved to the USSR from Germany. In the early days, the inscription AGFA had been discernible along the edges of the film, followed by the Russian equivalent of AGFA. Later the film bore only the Russian inscription, and finally was marked with the Zavod 2 name as indicated above.

PLATING SHOP

8. Dr. Hubert STRZELBA was chief of the Plating Shop. All work done was by very conventional methods and with conventional equipment, all of which was of Soviet manufacture. Tasks performed were as follows:
- a. Electrical oxidation of aluminum alloy
 - b. Burnishing and staining of steel
 - c. Phosphoric acid treatment of steel
 - d. Chromium and nickel plating

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NORTH WING

9. The north wing of the main building [not shown on sketch, page 6] was erected 1949 - 1952. It contained Sector 9, the Workshop. A German metallurgist, Gregor GASCH, was in charge of this section.
10. Section 9 was divided into four sections; with the exception of the materials testing section, they were:
- a. Lathe shop
 - b. Precision Mechanics Workshop
 - c. Electrical Shop
 - d. Welding and Sheet Metal Shop

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The equipment included metal microscopes, hardening ovens, etc.

11. In 1952, the Soviets began enlarging Sector 9. Lathes with a turning length of about six meters and capable of accepting stock up to 80 cm in diameter were installed. They were of Soviet manufacture. Also installed at the date of my departure was a radial lathe with a turning diameter up to three meters and acceptable stock length also of three meters. A large amount of crated machinery was waiting at the dock for installation. From the type of foundation being poured, I concluded that the unit was expecting more lathes and milling machines. The height of the shop was sufficient to allow the assembly of equipment up to eight meters in height.

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SECOND FLOOR, WEST WING

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12. This entire portion of the building contained Sector 4 and was under the supervision of Gerhard MUELLER. The High Frequency Laboratory, under Ing. PREIKSCHAT and employing Prof. Theodor SCHMIDT, physicist, and Dr. Friedrich MOLLWO, was located here. The primary task of this group was the development of transmitters of short wave length, receivers, and measuring apparatus with which to test this equipment. Approximately six months before the October deadline for discontinuing secret projects by Germans, this laboratory was placed out of bounds for German personnel. FOMIN, a talented Soviet high frequency engineer, took charge.

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Measurement Section

13. This unit was under the direction of Prof. SCHUTZ. It was responsible for the design and development of the six-component scale used in the wind tunnel. One of the regular functions of this section was the calibration of instruments. Most of the equipment was from captured German stocks.

Computer Section

14. This section contained a mechanical-electrical computer (not electronic), which was built by Dr. HOCH and capable of solving second degree differential equations. It was basically used for solving rocket flight problems. (With five known parameters, the instrument was capable of solving three unknowns.) Approximately seven additional computers were made and several were on order by the Soviets at the time of my departure. These machines were based on an earlier mathematical work by German Prof. KLINE, who I believe is at Goettingen University. The seven computers constructed were two-axis computers (X and Y), while those ordered to be built were three-axis models (X, Y, and Z). I am not capable of elaborating on the computer construction. These machines were held in very high regard by the Soviets and were a high-selling product of the institute.

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SECOND FLOOR SOUTH WING

15. The offices for Sector 4, the technical library, secretaries' offices, and the MVD office under KORSAKOV, who controlled the classified Soviet technical library, were located here.

SECOND FLOOR, EAST WING

16. The other office of the MVD, of which KHUTORYANSKIY was chief, the "secret" and "non-secret" archives, and other offices were contained in the south half of the wing. The wind tunnel was located in the central section. To my knowledge, the entire German component still at Ostashkov occupies the northeast corner of this floor and is not permitted to enter the remainder of the institute.

THIRD FLOOR

17. The third floor lay only over the southern wing of the building. Dr. Walter QUESSEL, a vibration specialist formerly with Hentschel Aircraft Works, had his laboratory here. QUESSEL was still in the USSR at the time of my departure. He had concluded calculations for a vibration test apparatus (Schuetteltisch) to be constructed later, upon instructions

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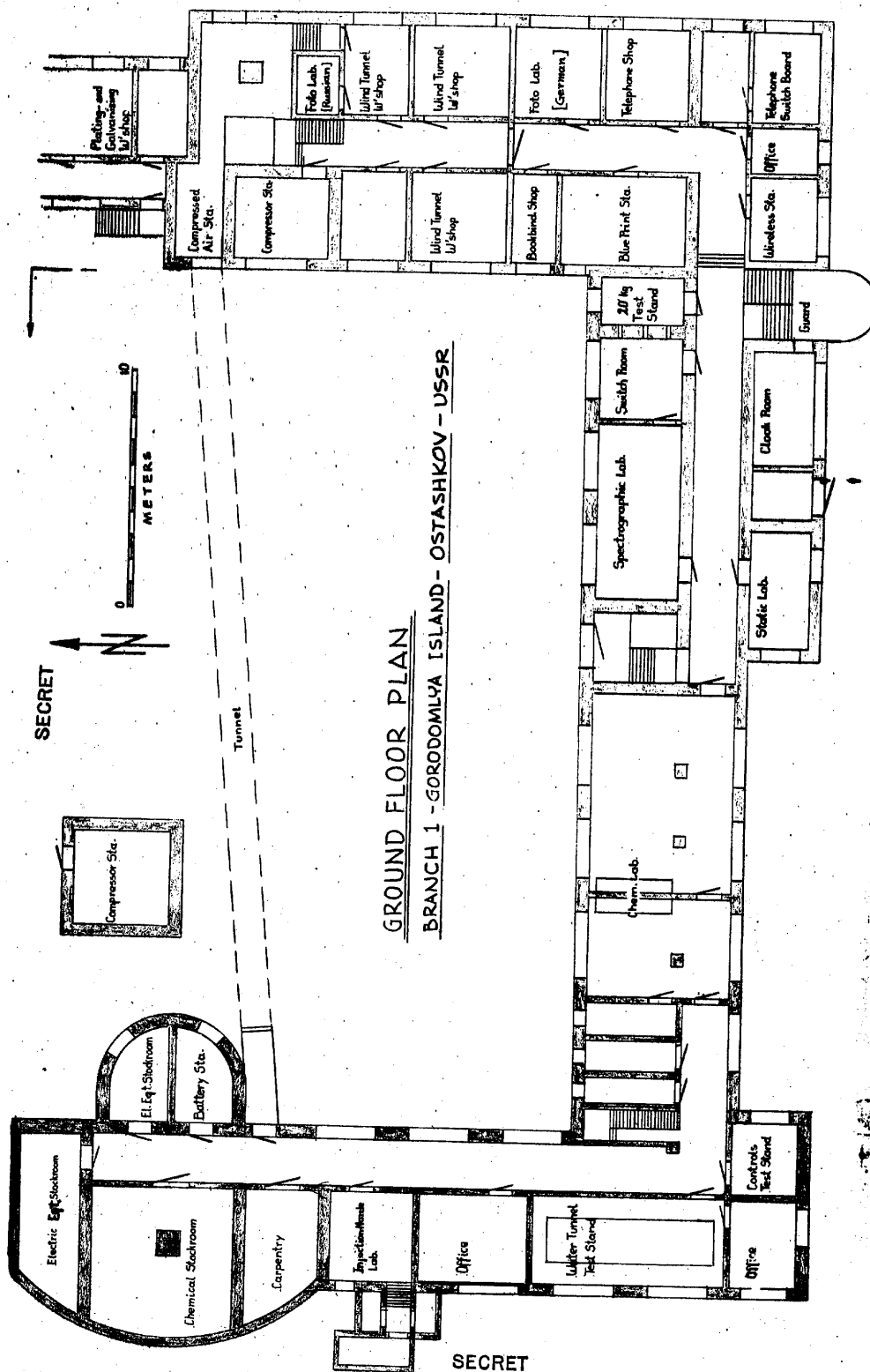
given by a group of Soviet scientists who visited the island for consultation. The apparatus was to be 1.5 to 2.0 meters in diameter and the vibrations were to be induced electrically.

18. Also on the third floor were the offices of Soviet chief engineer VASSILYEV, who had taken KURGANOV's place, Dr. WOLF of the Ballistic Section, Soviet Engineer KISELEV, who was the immediate superior to the head of the German specialists group, and those belonging to the Design Office of Sector 5.

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